NASA MSFC Energy Efficiency Team

LEED

at

Marshall

NASA MSFC Energy Efficiency Team

Building 4600

NASA – Marshall Space Flight Center

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Building 4346

NASA – Marshall Space Flight Center

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Building 4601

NASA – Marshall Space Flight Center

- Recently Began Construction
- Planned LEED Silver

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Building 4602

NASA – Marshall Space Flight Center

- Recently Began Design
- Planned LEED Silver

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HISTORY

- **Planning**
- **Design**
- **Construction**
- **Operations *(discussed later)***

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RESULTS

- **Good overall**
- **Minor problems encountered**

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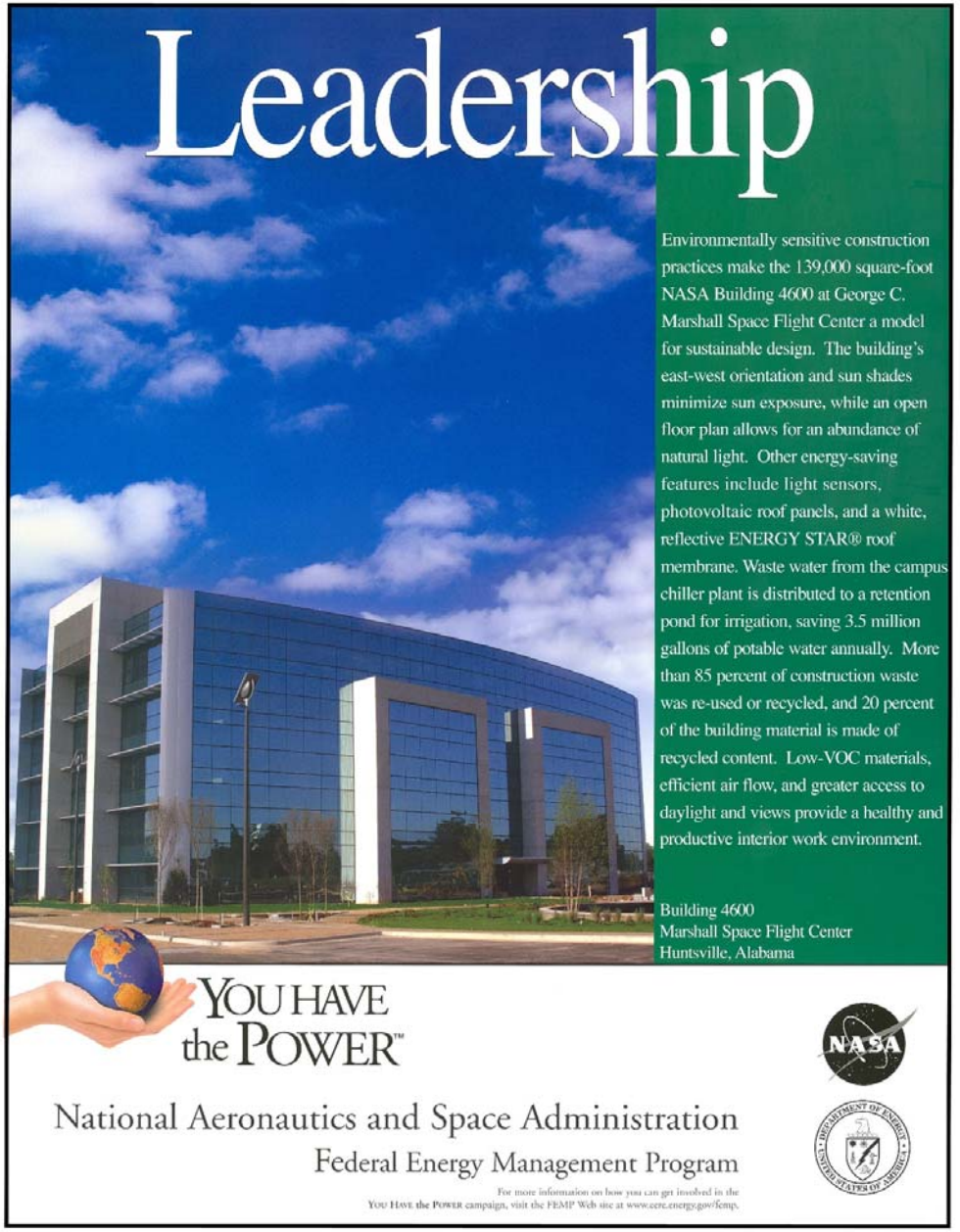

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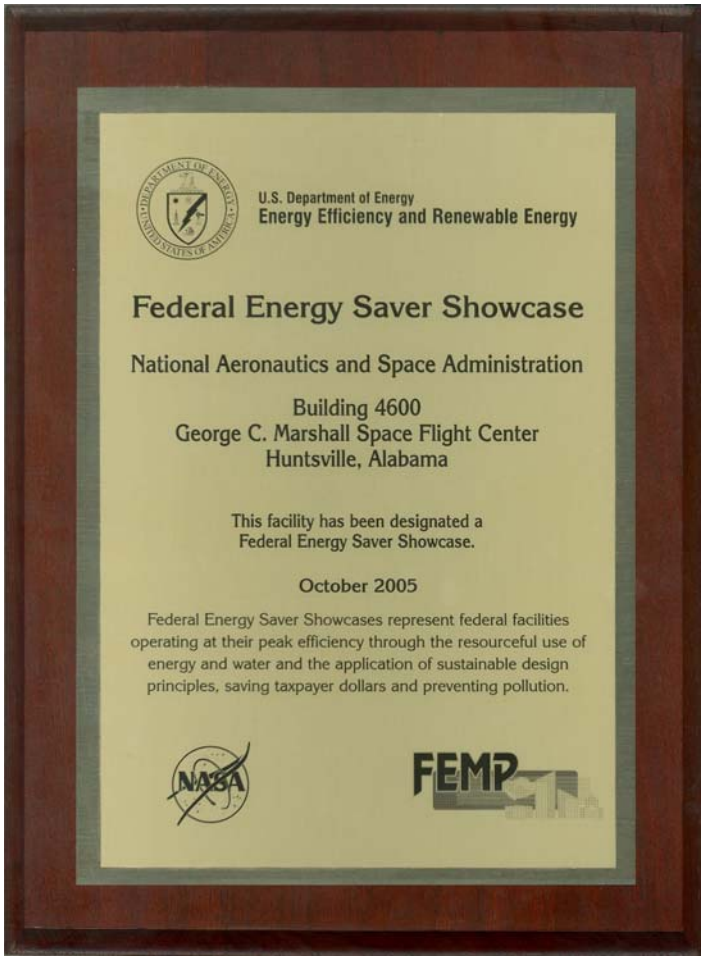
Positive Features

- Federal Energy Showcase Award – 2005
- LEED Silver Certification – February 2006
- Aesthetics Not Compromised
- Positive Feedback From Occupants
- Majority Of Occupants Have An Outside View
- Occupants Basically Satisfied



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Positive Features

- Design flexibility For Responsive Comfort Control
- Low Emitting Materials Installed
- Systematic Engineered Air Filtering System
- Optimization Of Energy-Efficiency Throughout
- Over 35KWh provided directly to the grid from solar roof panels
- Operates at 50% of the electrical usage of similar office buildings
- Recycled over 85% of all construction waste
- Meeting Individual Comfort Needs Attained Easier

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Problems Encountered

- **No listing of replacement materials to maintain operational integrity**
- **No specified contamination level for replacing furnishings**
- **Custodial Services required restructuring for Green-Cleaning to avoid added contamination**
- **Training of maintenance personnel to avoid contamination during cleanup after maintenance repairs**
- **Little of no known information from professional sources about O&M of LEED buildings** *(buildings normally operate 40+ years)*

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Problems From Oversights

- During planning and design – building users were not sure of “all” equipment load requirements
- This typically happens in electronic equipment rooms and/or rooms dedicated to computer equipment

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Possible Solution OF Oversights

- **Design all equipment rooms with the capability of operating individually during non-core hours**

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Q&A